



Department of Public Works

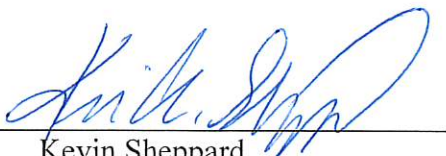
Storm Water Regulations Manual

These Storm Water Regulations were developed in accordance with the Storm Water Ordinance §54.01 (C)(2) "Adopt any regulations deemed necessary to accomplish the purposes of this ordinance..."

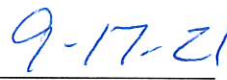
These Regulations outline and enhance the Storm Water Ordinance. The Regulations provide a more detailed guidance to the means and methods of carrying out the purposes of the Storm Water Ordinance.

The Department of Public Works reserves the right to revise, supplement, or rescind any regulations or portion of this document as it deems appropriate.

These Regulations are effective as of December 5, 2006.
Amended: 06/30/21.



Kevin Sheppard
Public Works Director



Date

Storm Water Regulations

“Regulations conforming to the intent of the Storm Water Ordinance as outlined in Title V:
Public Works, §54:01 (C)(2)”

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Storm Water Regulations

Note: These Regulations are prepared as a direct supplement to the City of Manchester's Storm Water Ordinance, Title V, Chapter 54: Storm Water.

SECTION 1. GENERAL PROVISIONS

(A) Purpose.

It is the purpose of these Regulations to extend and support the Storm Water Ordinance, Chapter 54.

(B) Administration.

The Director of the Department of Public Works or his designee shall administer the provisions of these Regulations. City Boards or Departments including, but not limited to the Planning Board who have formally adopted these regulations either directly or by reference, and who issue permits and/or approvals for projects and/or activities under their specific jurisdiction and in accordance with their specific jurisdictional requirements regarding public notice, hearings, and actions shall have approval authority under these Stormwater Regulations.

(C) Interpretations of Provisions.

The provisions of these Regulations with respect to the meaning of the technical terms and phrases, the regulations with respect to erosion and sediment control, and other technical matters shall be interpreted and administered by the Public Works Director acting in and for the city, through its Highway Commission.

(D) Definitions.

For the purpose of these Regulations and Chapter 54, Storm Water Ordinance, the following definitions shall apply: Words used in the singular shall include the plural, and the plural shall include the singular; words used in the present tense shall include the future tense. The word "shall" is mandatory and not discretionary. The word "may" is permissive. Words not defined in this section shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

- (1) "*Abutter*" shall be as defined in NH RSA 672:3 and as may be amended which is currently as follows: any person whose property adjoins or is directly across the street or stream from the land under consideration.
- (2) "*Accidental Discharge*" means a discharge prohibited by these Rules & Regulations, which occurs by chance, and without planning or thought prior to occurrence.
- (3) "*As-built Plans*" means drawings depicting conditions as they were actually constructed.

- (4) “*Best Management Practices*” or BMPs are physical, structural, and/or managerial practices that, when used singly or in combination, prevent or reduce pollution of water, that have been approved by the City of Manchester, and that have been incorporated by reference into these Regulations as if fully set out therein.

[NOTE: See Section 5(B) for recommended BMP manuals.]

- (5) “*Channel*” means a natural or artificial watercourse with a definite bed and banks that conducts flowing water continuously or periodically.
- (6) “*Clean Water Act*” means the Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.
- (7) “*Combined Sewer Drainage System*” means a single pipe conveyance system intended to receive both sewage and storm or surface water.
- (8) “*Community Water*” means any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wetlands, wells and other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the City of Manchester.
- (9) “*Construction Activity*” means activities subject to the EPA Phase II Storm Water Program and the NPDES General Construction Permits. These include construction projects resulting in land disturbance. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.
- (10) “*Contaminant*” means any physical, chemical, biological, or radiological substance or matter in water.
- (11) “*Environmental Protection Division (EPD)*” means a division of the Department of Public Works for the City of Manchester responsible for the treatment of wastewater and implementation of the City’s Stormwater Management Program under EPA’s NPDES Program.
- (12) “*Director of Public Works*” is the chief administrator of the Department of Public Works and is authorized to assign DPW staff to oversee the implementation of these Regulations and the City of Manchester’s Storm Water Ordinance.
- (13) “*Design Storm Event*” means a hypothetical storm event, of a given frequency interval and duration, used in the analysis and design of a storm water facility.
- (14) “*Discharge*” means dispose, deposit, spill, pour, inject, seep, dump, leak or place by any means, or that which is disposed, deposited, spilled, poured, injected, seeped, dumped, leaked, or placed by any means including any direct or indirect entry of any solid or liquid matter into the municipal separate storm sewer system.
- (15) “*Easement*” means an acquired privilege or right of use or enjoyment that a person, party, firm, corporation, City or other legal entity has in the land of another.

- (16) “*Erosion*” means the removal of soil particles by the action of water, wind, ice or other geological agents, whether naturally occurring or acting in conjunction with or promoted by anthropogenic activities or effects.”
- (17) “*Highway Division*” means the division of the Department of Public Works for the City of Manchester responsible for the operation and maintenance of the City’s streets.
- (18) “*Hotspot*” (“*Priority Area*”) means an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in storm water.
- (19) “*Illicit Connections*” means illegal and/or unauthorized connections to the municipal separate storm water system whether or not such connections result in discharges into that system. “*Illegal Connection*” means either of the following:
- a. Any pipe, open channel, drain or conveyance, whether on the surface or subsurface, which allows an illicit discharge to enter the storm drain system including but not limited to any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system, regardless of whether such pipe, open channel, drain or conveyance has been previously allowed, permitted, or approved by an authorized enforcement agency; or
 - b. Any pipe, open channel, drain or conveyance connected to the municipal separate storm sewer system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.
- (20) “*Illicit Discharge*” means any discharge to the municipal separate storm sewer system, culverts, drainage ditches and stream crossings that is not composed entirely of storm water and not specifically exempted under Section 2(J).
- (21) “*Industrial Activity*” means NPDES Storm Water Permits for discharges associated with industrial activity as defined in 40 CFR, Section 122.26 (b)(14).
- (22) “*Land Disturbing Activity*” means any activity on property that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land-disturbing activities include, but are not limited to, development, re-development, demolition, construction, reconstruction, clearing, grading, filling, and excavation.
- (23) “*Maintenance*” means any activity that is necessary to keep a storm water facility in good working order so as to function as designed. Maintenance shall include complete reconstruction of a storm water facility if reconstruction is needed in order to restore the facility to its original operational design parameters. Maintenance shall also include the correction of any problem on the site property that may directly impair the functions of the storm water facility.

- (24) “*Maintenance Agreement*” means a document recorded in the land records that acts as a property deed restriction, and which provides for long-term maintenance of storm water management practices.
- (25) “*Municipal Separate Storm Sewer System (MS4)*” means the conveyances owned or operated by the municipality for the collection and transportation of storm water, including the roads and streets and their drainage systems, catch basins, curbs, gutters, ditches, man-made channels, and storm drains.
- (26) “*New Development*” means any construction or land alteration resulting in earth disturbances on an area that has not previously been developed to include impervious cover.
- (27) “*National Pollutant Discharge Elimination System Permit*” or “*NPDES Permit*” means a permit issued pursuant to 33 USC § 1342(b) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis. “
- (28) “*Non-point Source Pollution*” means water sources and inputs within a watershed, which occur over a wide area, and are associated with particular land uses, as opposed to individual point source discharges.
- (29) “*Non-Storm Water Discharge*” means any discharge to the storm drain system that is not composed entirely of storm water.
- (30) “*Off-site Facility*” means a structural BMP located outside the subject property boundary described in the permit application for land development activity.
- (31) “*On-site Facility*” means a structural BMP located within the subject property boundary described in the permit application for land development activity.
- (32) “*Peak Flow*” means the maximum instantaneous rate of flow of water at a particular point resulting from a storm event.
- (33) “*Person*” means any and all persons, including any individual, firm or association and any city or private corporation organized or existing under the laws of this or any other state or country.
- (34) “*Pollutant*” means anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; petroleum hydrocarbons; automotive fluids; cooking grease; detergents (biodegradable or otherwise); degreasers; cleaning chemicals; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects and accumulations, so that same may cause or contribute to pollution; sediment; floatables; pesticides, herbicides, and fertilizers; liquid and solid wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from

constructing a building or structure; concrete and cement; and noxious or offensive matter of any kind.

- (35) “*Pollution*” means the contamination or other alteration of any water’s physical, chemical or biological properties by the addition of any constituent and includes but is not limited to, a change in temperature, taste, color, turbidity, or odor of such waters, or the discharge of any liquid, gaseous, solid, radioactive, or other substance into any such waters as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety, welfare, or environment, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.
- (36) “*Premises*” means any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.
- (37) “*Priority Area*” means “hot spot” as defined in Definitions (17).
- (38) “*Redevelopment*” means any construction, land alteration, or improvement of a site that does not meet the definition of new development.
- (39) “*Runoff*” means that portion of the precipitation on a drainage area that is discharged from the area into the municipal separate storm water system.
- (40) “*Salt*” includes solids such as sodium chloride (NaCl), potassium chloride (KCl), calcium chloride (CaCl₂), and magnesium chloride (MgCl₂). It also includes mixtures of the same substances with abrasives such as sand, cinder, slag, etc.
- (41) “*Sediment*” means solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.
- (42) “*Sedimentation*” means soil particles suspended in storm water that can settle in streambeds and disrupt the natural flow of the stream.
- (43) “*Soils Report*” means a study of soils on a subject property with the primary purpose of characterizing and describing the soils. The soils report shall be prepared by a soils scientist or engineer, who shall be directly involved in the soil characterization either by performing the investigation or by directly supervising employees.
- (44) “*Stabilization*” means providing adequate measures, vegetative and/or structural, that will prevent erosion from occurring.
- (45) “*Standard Specifications*” means the Standard Specifications for Road, Drain & Sewer Construction prepared by the Manchester Highway Division of DPW.
- (46) “*State Waters*” means any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wells, and other bodies of surface and subsurface water, natural or artificial, lying within or forming a part of the boundaries of the State of

New Hampshire which are not entirely confined and retained completely upon the property of a single person.

- (47) “*Storm Water*” means storm water runoff, snow melt runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration and drainage.
- (48) “*Storm Water Appeals Committee*” will be a three-member committee consisting of the Director of the Department of Public Works, an engineer from a private engineering firm and an engineer from the Department of Public Works.
- (49) “*Storm Water Management*” means the programs to maintain quality and quantity of storm water runoff to pre-development levels.
- (50) “*Storm Water Management Facilities*” means the drainage structures, conduits, ditches, combined sewers, sewers, and all device appurtenances by means of which storm water is collected, transported, pumped, treated or disposed of.
- (51) “*Storm Water Management Plan*” means the set of drawings and other documents that comprise all the information and specifications for the programs, drainage systems, structures, BMPs, concepts and techniques intended to maintain or restore quality and quantity of storm water runoff to pre-development levels.
- (52) “*Storm Water Pollution Prevention Plan*” (SWPPP) means a plan that clearly describes appropriate control measures that include a description of all pollution control measures (i.e., BMPs) that will be implemented as part of the construction or industrial activity to control pollutants in storm water discharges and describes the interim and permanent stabilization practices for the site.
- (53) “*Storm Water Runoff*” means flow on the surface of the ground, resulting from precipitation and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.
- (54) “*Storm Water Utility*” means the Department of Public Works and its duly authorized agents created by ordinance of the City to administer the Storm Water Management Ordinance, and other Storm Water Regulations adopted by the City.
- (55) “*Structural BMPs*” means devices that are constructed to provide control of storm water runoff.
- (56) “*Structural Storm Water Control*” means a structural storm water management facility or device that controls storm water runoff and changes the characteristics of that runoff including, but not limited to, the quantity and quality, the period of release or the velocity of flow.
- (57) “*Surface Water*” includes waters upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other watercourses, lakes and reservoirs.

(58) “*Watercourse*” means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

(59) “*Watershed*” means all the land area that contributes runoff to a particular point along a waterway.

SECTION 2. PROHIBITED DISCHARGES

The specific prohibited discharges in the latest version of the MS4 Permit and this section are not inclusive of all discharges prohibited by these Regulations.

(A) Violation of Water Quality Standard.

No person shall introduce or cause to be introduced into the Municipal Separate Storm Sewer System (MS4) any discharge that causes or contributes to causing the City to violate a water quality standard, the City’s NPDES permit (latest version), or any state-issued discharge permit for discharges from its MS4.

(B) Introduction of Prohibited Substances.

No person shall dump, spill, leak, pump, pour, emit, empty discharge, leach, dispose, or otherwise introduce or cause, allow, or permit to be introduced any prohibited substance listed in the latest version of the NPDES MS4 permit or any of the following substances into the MS4, surface waters, culverts, drainage ditches and stream crossings.

- (1) Any new or used motor oil, antifreeze, or other motor vehicle fluid;
- (2) Any industrial wastes;
- (3) Any hazardous waste, including hazardous household waste;
- (4) Any domestic sewage or septic tank waste, grease trap waste, or grit trap waste;
- (5) Any garbage, rubbish or yard waste;
- (6) Any wastewater from a commercial car wash facility; from any vehicle washing, cleaning or maintenance at any new or used automobile, or other vehicle dealership, rental agency, body shop, repair shop, or maintenance facility; or from any washing, cleaning or maintenance of any business or commercial or public service vehicle, including truck, bus, or heavy equipment, by a business or public entity that operates more than two such vehicles;
- (7) Any wastewater from the washing, cleaning, de-icing, or other maintenance of aircraft;
- (8) Any wastewater from commercial mobile power washer or from the washing or other cleaning of a building exterior that contains any soap, detergent, degreaser, solvent, or any other harmful cleaning substance;
- (9) Any wastewater from any floor, rug or carpet cleaning;
- (10) Any wastewater from the wash down or other cleaning of pavement that contains any harmful quantity of soap, detergent, solvent, degreaser, emulsifier, dispersant, or any other harmful cleaning substance; or any wastewater from the wash down or other

cleaning of any pavement where any spill, leak, or other release of oil, motor fuel, or other petroleum or hazardous substance has occurred, unless all harmful quantities of such released material have been previously removed;

- (11) Any effluent from a cooling tower, condenser, compressor, emissions scrubber, emissions filter, or the blow-down from a boiler;
- (12) Any ready-mixed concrete, mortar, ceramic, or asphalt base material or hydro mulch material, or from the cleaning of commercial vehicles or equipment containing, or used in transporting or applying, such material;
- (13) Any runoff or wash down water from any animal pen, kennel, or fowl or livestock containment area;
- (14) Any filter backwash from a swimming pool, fountain or spa;
- (15) Any swimming pool water containing any harmful quantity of chlorine (≥ 11 ug/L is harmful to aquatic life per NHDES Surface Water Quality Regulations), muriatic acid or other chemical used in the treatment or disinfection of the swimming pool water or in the pool cleaning;
- (16) Any water from a water curtain in a spray room used for painting vehicles or equipment;
- (17) Any contaminated runoff from a vehicle wrecking yard;
- (18) Any runoff from waste or contaminated soil stockpiles;
- (19) Any substance or material that will damage, block, or clog the MS4, culverts, drainage ditches or stream crossings;
- (20) Any release from a petroleum storage tank, or any leachate or runoff from soil contaminated by a leaking petroleum storage tank, or any discharge of pumped, confined, or treated waste water from the remediation of any such petroleum storage tank release, unless it complies with state and federal standards and does not contain any harmful quantity of any pollutant;
- (21) Any pet waste as outlined in the Manchester Ordinance §90.04
- (22) Any discharge not in compliance with an applicable NPDES permit (e.g., non-contact cooling water, storm water).
- (23) Any waste from construction sites including but not limited to discarded building materials, concrete truck wash out, demolition debris, chemical litter, and sanitary wastes.
- (24) Any sediment, silt, earth, soil or other material, including from erosion of bare earth and/or steep slopes.

(C) Introduction of Earth-type Materials.

No person shall introduce or cause to be introduced into the MS4 or any surface water body, any harmful quantity of sediment, silt, earth, soil, or other material that can clog or damage the MS4, culverts, drainage ditches or stream crossings or result in a violation of water quality standards.

(D) Introduction of Sewage and Grey Water.

No person shall connect a line conveying sanitary sewage, domestic or industrial, to the MS4; this includes gray water discharge such as washing machine discharge, sink drains, floor drains, etc. or allow such a connection to continue.

(E) Service Station Pavement Wash Water.

No person shall cause or allow any pavement wash water from a service station to be discharged into the MS4 unless such wash water has passed through a properly functioning and maintained, grease, oil, and sand interceptor before discharge into the MS4.

(F) Pesticide and Herbicide Use.

No person shall use or cause to be used any pesticide or herbicide contrary to any directions for use on any labeling required by state or federal statute or regulation. Any use of any pesticide, herbicide, or fertilizer in any manner that the person knows, or reasonably should know, is likely to cause, or does cause, a harmful quantity of the pesticide, herbicide, or fertilizer to enter the MS4 or waters of the United States is prohibited.

(G) Disposal of Pesticide and Herbicide.

No person shall dispose of, discard, store, or transport a pesticide, herbicide, or fertilizer, or a pesticide, herbicide, or a fertilizer container, in a manner that the person knows, or reasonably should know, is likely to cause, or does cause, a harmful quantity of the pesticide, herbicide, or fertilizer to enter the MS4 or waters of the United States.

(H) Storage of Trash, Toxic Substances and Hazardous Wastes.

No person shall allow trash and debris to stand on property or collect on property and prohibit the storage of toxic or hazardous substances on property so as to allow exposure to precipitation and storm water runoff, which can affect storm water discharge to the MS4 or adjacent water table. Any toxic or hazardous substances stored onsite must be in accordance with EPA and State regulations.

(I) Litter of Urban Ponds, Lakes, Streams or River Banks.

Any residential, commercial or industrial property with a boundary located within 150 feet of any pond, lake, stream or river bank, shall assure that trash, debris, materials, containers, grass clippings, leaf and yard waste, wood chips, material used for cover or any such other material, does not litter this buffer area by means natural (wind or storm movement of material), by the careless discard of such material, or by any other means that displaces these objects from the owner's property boundary to anywhere within this 150 foot buffer zone area. Sites under construction are regulated under their local and federal Permit requirements. All such violations

will be addressed first through written notification with a time frame for clean up. If the clean up is not completed in the time frame stated, then the City will continue escalated enforcement as outlined in the penalty section of these Regulations.

(J) Allowable Discharges.

Notwithstanding any provisions to the contrary, allowable discharges in the latest version of the NPDES MS4 Permit and the following types of discharges into the storm drain system are exempt from the prohibitions set herein:

- (1) Watering of lawns, landscaping and gardens;
- (2) Washing of personal motor vehicles by residents;
- (3) Residential building wash waters without detergents;
- (4) Draining of dechlorinated water from swimming pools or spas that meet the following conditions:
 - a. The pool water is dechlorinated naturally by allowing the water to sit in the sun for 5-10 days without adding any chlorine or by using a chemical dichlorination additive (contact your local pool supply store for options); and
 - b. Dechlorination is verified using a pool testing kit (chlorine residual must be less than the NHDES Surface Water Quality Standard of 11 ug/L); and
 - c. Water pH is between 6 and 9; and
 - d. There is no discharge of filter media, acid cleaning wastes or solutions; and
 - e. The discharge water will not pond or flow to neighboring properties; and
 - f. The discharge will not cause erosion of a land surface; and
 - g. The discharge does not occur during rain events.
- (5) Flushing of water lines or other discharges from potable water sources that meet the following conditions:
 - a. The discharge will not cause erosion of a land surface; and
 - b. The chlorine residual in the discharge is less than 11 ug/L.
- (6) Flows from fire fighting activities;
- (7) Managed minimal amounts of air conditioning condensation;
- (8) Uncontaminated pumped groundwater;
- (9) Uncontaminated groundwater infiltration (defined as water other than wastewater that enters a sewer system including sewer service connections and foundation drains from the ground through such means as defective pipes, pipe joints, connections, or manholes);
- (10) Discharges from rising ground waters, springs, and flows from riparian habitats and wetlands;
- (11) Diverted stream flows;
- (12) Water from crawl space pumps;
- (13) Footing/foundation drains;
- (14) Street wash waters;
- (15) Non-contact cooling water discharged in accordance with a valid NPDES permit.

SECTION 3. SALT USE AND STORAGE

(A) Purpose and Intent.

The purpose and intent of this chapter is to minimize environmental impacts associated with salt storage and use and to track the amount of salt used on private parking lots and streets for snow and ice control.

(B) Salt Storage at Commercial and Industrial Properties.

- (1) Salt shall be stored on an impermeable surface.
- (2) Salt shall be covered at all times to prevent dispersion by runoff and to control wind dispersal.
- (3) When not using a permanent roof, a waterproof impermeable, flexible cover must be placed over all storage piles to protect against precipitation and surface water runoff. The cover must prevent runoff and leachate from being generated by the outdoor storage piles. The cover must be secured to prevent removal by wind or other storm events.
- (4) Any roof leaks, tears or damage should be temporarily repaired during winter to reduce the entrance of precipitation. Permanent repairs shall be completed prior to the next winter season.
- (5) Storage areas shall be graded to direct surface drainage away from the storage area. In no case shall the surface drainage be allowed to flow through the base of the storage piles.

(C) Salt Application.

Private parking lot owners and operators and private street owners and operators shall:

- (1) when using commercial salt applicators, use commercial salt applicators trained and certified in accordance with Env-Wq 2203.
- (2) report annual salt usage within the City of Manchester boundaries using the UNH Technology Transfer Center online tool or report salt usage directly to the Department of Public Works (DPW) Environmental Protection Division (EPD). When used, a trained and certified commercial salt applicator will report the annual salt use.

SECTION 4. PERMIT PROCEDURES AND REQUIREMENTS

Projects requiring a land disturbance permit shall be required to submit the materials as specified in this section and are required to meet the stormwater management criteria and long-term

maintenance agreements of stormwater practices as specified in the City of Manchester's Standard Specification for Road, Drain, and Sewer Construction.

(A) Permit Required.

As outlined in §54.05 (A) of the Ordinance, a land disturbance permit is required for any new development or redevelopment prior to any land disturbance activity as described below, unless the project meets the exemptions outlined in Section 4(B):

- (1) Land disturbance where there is a 15% or greater slope¹ and where the land disturbance is greater than or equal to 1,000 square feet;
- (2) Land disturbing activity of one half (0.5) or more acres of land;
- (3) Land disturbing activity of less than one half (0.5) acre of land if such activity is part of a larger common plan of development that affects one half (0.5) or more acres of land;
- (4) Land disturbing activity of less than one half (0.5) acre of land if in the discretion of the City of Manchester, such activity poses a unique threat to water, or public health or safety;
- (5) The creation and use of borrow pits (the excavation of soils from one area to be used in another area that would meet any of the criteria in 1, 2, or 3 above).

Every owner/operator will also be required to obtain an EPA Construction General Permit from the EPA through a Notice of Intent, where applicable.

(B) Exemptions.

The following are exempt from obtaining a land disturbance permit.

- (1) Agricultural and forestry practices in accordance with BMPs published by the NH Department of Agriculture;
- (2) Interior alterations and exterior maintenance to existing buildings and structures;
- (3) Resurfacing and routine maintenance of pavement unless underlying and/or surrounding soil is disturbed and/or changes in surface grade or elevations are made that change the flow patterns and discharge of stormwater runoff;
- (4) Any new development or redevelopment that is granted a waiver as outlined in these Regulations (Section 9);

¹ A city-wide steep slope map is available for reference on the City's website under the stormwater regulations portion of the stormwater web page.

- (5) A project that has received an approval prior to when these Regulations were adopted;
- (6) A project that has received subdivision or site plan approval from the Planning Board, provided the project demonstrates compliance with the applicable stormwater management performance standards, site inspection, and inspection and maintenance requirements of these regulations and the decision includes a designation as such. Where approval of compliance with these regulations is sought through the subdivision and site plan review process, include a completed copy of the permit application form and checklist in Appendix A with subdivision and site plan applications.

In cases in which the project does not demonstrate compliance with these rules and regulations, or when none of the above approvals are required, a land disturbance permit through the DPW/EPD will be required.

(C) Application Requirements.

Any land disturbing activity that meets the criteria listed in Section 4(A) of these Regulations, must secure required permits through the City of Manchester's DPW/EPD before construction can begin, unless the project meets the exemptions outlined in Section 4(B) of these Regulations. All applications required under Section 4(A) shall include a comprehensive Stormwater Management Plan (SMP). The SMP shall include:

- (1) a narrative description and an Existing Conditions Site Plan showing all pre-development impervious surfaces, buildings and structures; surface water bodies and wetlands; slopes or greater than or equal to 15 percent; drainage patterns, sub-catchment and watershed boundaries; building setbacks and buffers, locations of various hydrologic group soil types, mature vegetation, land topographic contours with minimum 2-foot intervals and spot grades where necessary for sites that are flat.
- (2) a narrative description and a Proposed Conditions Site Plan showing all post-development proposed impervious surfaces, buildings and structures; temporary and permanent stormwater management elements and best management practices (BMP), including BMP GIS coordinates and GIS files; important hydrologic features created or preserved on the site; drainage patterns, sub-catchment and watershed boundaries; building setbacks and buffers; proposed tree clearing and topographic contours with minimum 2-foot intervals. The plans shall provide calculations and identification of the total area of disturbance proposed on the site (and off site if applicable) and on slopes greater than or equal to 15 percent and total area of new impervious surface created. A summary of the drainage analysis showing a comparison of the estimated peak flow and volumes for various design storms at each of the outlet locations shall be included.
- (3) a description of the general approach and strategies implemented, and the facts relied upon, to meet the performance standards in Section 6.0. The SMP shall include design plans and/or graphical sketch(es) of all proposed LID practices.

- (4) calculations of the change in impervious area, removal rates for each best management practice, and GIS files containing the coordinates of all stormwater infrastructure elements (e.g., catch basins, swales, detention/bioretention areas, piping).
- (5) a description and a proposed Site Plan showing proposed erosion and sediment control measures, limits of disturbance, temporary and permanent soil stabilization measures in accordance with the latest version of the NHDES Stormwater Manual (Volume 3) as well as a construction site inspection plan including temporary water quality measures, phased installation of best management practices and final inspection upon completion of construction. The applicant may submit a SWPPP developed under EPA's Construction General Permit to meet this requirement to the extent it is consistent with the requirements of this regulation.
- (6) a long-term stormwater management agreement and Inspection & Maintenance (I&M) Plan (see Section 8), as applicable, that describes the responsible parties and contact information for the qualified individuals who will perform future BMP inspections and maintenance and/or future inspection and maintenance of steep slopes for stability. A long-term I&M Plan will not be required for sites with slopes less than 15% and with no drainage infrastructure or structural stormwater treatment/control BMPs.
- (7) a description and identification of locations of any proposed deicing chemical and/or snow storage areas. SMP will describe how deicing chemical use will be minimized or used most efficiently.
- (8) a description of construction and waste materials, chemicals, and fuels expected to be stored and used on-site and controls to reduce pollutants from these materials.
- (9) In urbanized areas that are subject to the EPA MS4 Stormwater Permit and will drain to chloride-impaired waters, any new developments and redevelopment projects shall submit a description of measures that will be used to minimize salt usage, and track and report amounts applied using the UNH Technology Transfer Center online tool (<http://www.roadsalt.unh.edu/Salt/>) in accordance with the latest version of the NH MS4 Permit.

An application must be made to the DPW/EPD in a form and contain information as specified in Appendix A. The application shall be accompanied by payment of the appropriate application and review fees. The fee shall be collected by the DPW/EPD prior to any review.

(D) Permit Duration.

Approvals issued under this section shall be valid from the date of issuance through the date as outlined in Section 5(D).

(E) Stormwater Pollution Prevention Plan (SWPPP).

For construction projects with one acre or more of land disturbance, a SWPPP shall be developed and maintained as required by EPA's Construction General Permit and described in the Department of Public Works' Standard Specifications. The SWPPP shall be retained at the construction site from the date of commencement of construction through the date of final construction.

SECTION 5. GENERAL PERMIT PROVISIONS

(A) Review and Approval of Application.

- (1) Administratively Complete Review. The Department of Public Works shall issue a written notice of administrative completeness or deficiencies to an applicant for an application within 30 calendar days of receiving the application. If the DPW issues a written notice of deficiencies within 30 calendar days, the administrative review time frame and the overall time frame are suspended from the date the notice is issued until the date that the DPW/EPD receives the missing information from the applicant. If the DPW does not issue a written notice of administrative completeness or deficiencies within 30 calendar days of receipt of application, the application is deemed administratively complete. If the DPW issues a timely written notice of deficiencies, an application shall not be complete until all requested information has been received by the DPW/EPD.
- (2) Public Comment. Once accepted, the applicant and abutters shall be notified of the posting of the application on the EPD's website and the start of the 30-day comment period. Comments received by EPD will be addressed in the permit approval issued to the applicant with a copy maintained at the EPD office for public review.
- (3) Approval. Once the application is determined to be administratively complete, the Department of Public Works will review each land disturbance permit application to determine its conformance with the provisions of these Regulations. Within sixty five (65) days of issuing a written notice of administrative completeness, the Department of Public Works shall provide one of the following responses in writing:
 - a. Approval of the Land Disturbance application;
 - b. Approval of the Land Disturbance application, subject to such reasonable conditions as may be necessary to secure substantially the objectives of these regulations and issue the permit subject to these conditions; or
 - c. Denial of the Land Disturbance application, indicating the reason(s) for the denial.

- (4) If the Department of Public Works has granted conditional approval of the application, the applicant shall submit a revised plan that conforms to the conditions established by the Department of Public Works. However, the applicant shall be allowed to proceed with this land disturbing activity so long as it conforms to conditions established by the Department of Public Works.

(B) Fees.

The Department of Public Works shall establish and obtain fees to cover expenses connected with the review of the Land Disturbance application. Applicants must pay review fees before the review process may begin.

These fees will include:

- (1) A non-refundable application fee of \$300, payable to DPW, is due at the time an application is filed.
- (2) Postage fees for public notification to abutters and other legally required parties at a cost of \$10 per recipient.
- (3) A technical review fee sufficient to cover professional review services for the project, when requested by DPW.
 - a. The Department of Public Works is authorized to retain a Registered Professional Engineer or other professional consultant to advise the Department of Public Works on any or all aspects of the plan.
 - b. Consultant fees shall be determined at the time of project review based on a specific scope of work.
 - c. The services for which a fee may be utilized include, but are not limited to, wetland survey and delineation, hydrologic and drainage analysis, wildlife evaluation, stormwater quality analysis, site inspections, as-built plan review, and analysis of legal issues.

(C) Duration of Construction Activity.

Every approval for land disturbance shall expire and become null and void if substantial work authorized by such approval has not commenced within one hundred eighty (180) calendar days of issuance, or is not complete within eighteen (18) months from the date of the commencement of construction (unless construction extension is granted by the Planning Board).

(D) Notice of Construction.

The applicant must notify the DPW/EPD ten (10) working days in advance of the commencement of construction. If the project is also subject to EPA's Construction General Permit (CGP), the Contractor must provide a copy of the Notice of Intent (NOI) filed with EPA and the Stormwater Pollution Prevention Plan (SWPPP) required under the CGP to DPW/EPD before or at the time of notification of construction.

(E) Joint Responsibility.

Any contractor or subcontractor on a site of construction activity, who is not an owner or operator, but who is responsible under his/her contract or subcontract for implementing a best management practices control measure(s), is jointly and severally responsible for any willful or negligent failure on his/her part to adequately implement that control measure (if such failure causes or contributes to causing the City to violate a water quality standard, the City's NPDES permit, or any State-issued discharge permit for discharges from its MS4).

(F) Final Stabilization.

When a site has been finally stabilized and all storm water discharges from construction activities that are authorized by these Rules & Regulations and by the NPDES permit for those construction activities are eliminated, or where the operator of all storm water discharges at a facility changes, the operator of the construction site shall submit to the City's DPW/EPD a copy of the NPDES Notice of Termination (NOT), or EPA reference tracking number, of coverage under a NPDES General Permit for Storm Water Discharges. If the construction activity was performed in a combined sewer area of the City the Notice of Termination need only be filed with the City of Manchester.

Upon final stabilization of the construction site, the owner (or duly authorized representative thereof) by submission of the NOT to DPW/EPD and the EPA is certifying that the site has been finally stabilized. The City may withhold an occupancy or use permit for any premises constructed on the site until such certification of final stabilization has been filed and the Director of Public Works has determined, following any appropriate inspection, that final stabilization has, in fact, occurred and that any required permanent structural controls have been completed.

The operator shall retain copies of any SWPPP, certifications and all reports required by these Regulations or by the NPDES permit for the site, and records of all data used to complete the NOI, for a period of at least three years for the date that the site is finally stabilized.

The operator shall assure that the City of Manchester's DPW/EPD is given two full sets of as-builts (to include at a minimum sewers, drains, storm water structures, swales, roads, curb lines, sidewalks, and vertical information on structures via profile or plan invert notes) of the completed project. These must be received within one hundred and twenty (120) days of the submission of the NOT. If these as-builts are not received by the City, then the City may draw

funds from any retainage, performance or security bonds to have an engineer complete the as-builts from the field notes with all costs being borne by the operator.

Within thirty (30) days of the submission of the NOT the operator's construction site must be cleaned and free of any residual stock piles of materials, hay bales, silt fences or any such BMPs that were used for site erosion and sediment controls. If these are not completed the City may draw funds from any retainage, performance, or security bonds to have a contractor complete the clean up and close out any remaining site stabilization.

(G) Performance Bonds.

- (1) The Department of Public Works may, at its discretion, require the submittal of a performance security or performance bond prior to issuance of a land disturbance permit in order to ensure that the storm water practices are installed by the permit holder as required by the approved land disturbance permit. The amount of the installation performance security or performance bond shall be the total estimated construction cost of the structural BMPs approved under the permit plus any reasonably foreseeable additional related costs, e.g., for damages or enforcement. [Or plus a certain percentage of the total estimated costs.] The performance security shall contain forfeiture provisions for failure to complete work specified in the Storm Water Pollution Prevention Plan. The applicant shall provide an itemized construction cost estimate complete with unit prices, which shall be subject to acceptance, amendment or rejection by the Department of Public Works. Alternatively, the Department of Public Works shall have the right to calculate the cost of construction cost estimates.
- (2) The performance security or performance bond shall be released in full only upon submission of as-built plans, an initial inspection report following construction and written certification by a registered professional engineer licensed to practice in the State of New Hampshire that the structural BMP has been installed in accordance with the approved plan and other applicable provisions of these Regulations. The Department of Public Works will make a final inspection of the structural BMP to ensure that it is in compliance with the approved plan and the provisions of these Regulations. Provisions for a partial pro-rata release of the performance security or performance bond based on the completion of various development stages can be made at the discretion of the Department of Public Works.

SECTION 6. STORM WATER MANAGEMENT PERFORMANCE STANDARDS

(A) Standards.

All proposed stormwater practices and measures shall be designed and installed to meet the latest version of the NPDES MS4 Permit and applicable performance standards of the Storm Drainage Requirements of the DPW Standard Specifications, whichever is more stringent.

(B) Storm Water Design or Best Management Practices Manual.

The City adopts as its storm water design and “Best Management Practices” (BMP) manual the latest version of the New Hampshire Stormwater Manual.

The following documents, which are incorporated by reference in these Regulations may also be used as guides for design:

- (1) New Hampshire Stormwater Manual: Volume 3 Erosion and Sediment Controls During Construction (latest version);
- (2) New Hampshire Stormwater Manual: Volume 2 Post-construction Best Management Practices Selection & Design (latest version);
- (3) The City of Manchester’s “Standard Specifications for Road, Drain & Sewer Construction”;
- (4) “Innovative Stormwater Treatment Technologies” – Best Management Practices Manual NHDES, May 2002 as amended; and
- (5) “New Hampshire DOT Guidelines for Temporary Erosion and Sediment Control and Storm Water Management” - NHDOT Bureau of Construction.

SECTION 7. INSPECTION AND SITE SUPERVISION

Inspections shall be performed and documented in accordance with the Storm Drainage Requirements of the Standard Specifications.

SECTION 8. LONG-TERM MAINTENANCE AGREEMENT (LTMA) AND INSPECTION AND MAINTENANCE PLAN

A LTMA and stand-alone Inspection and Maintenance plan (I&M Plan) is required at the time of application. The I&M Plan shall be prepared in accordance with the Storm Drainage Requirements of the Standard Specifications.

SECTION 9. WAIVERS

(A) Conditions for Waiver.

The DPW may grant a waiver from these regulations upon appropriate demonstration by the applicant as to why these regulations should not apply. In order for DPW to issue a waiver, the applicant must demonstrate and DPW must find the application meets the minimum criteria listed below:

- (1) Runoff from **NEW** impervious surfaces shall be directed to a filtration and/or infiltration device or properly discharged to a naturally occurring or fully replanted and vegetated area with slopes of 15 percent or less and with adequate controls to prevent soil erosion and concentrated flow.
- (2) Impervious surfaces for parking areas and roads shall be minimized to the extent possible (including minimum parking requirements for proposed uses and minimum road widths).
- (3) Runoff generated from **NEW** impervious surfaces shall be retained on the development site and property and mimic natural hydrologic processes to the maximum extent possible, or it is determined that the biological and chemical properties of the receiving waters will not be degraded by or its hydrology will benefit from discharge of stormwater runoff from the development site.
- (4) Compliance with standards 9(A)(1)-9(A)(3) above will be determined by the DPW on a case-by-case basis as site conditions and constraints will differ greatly between various redevelopment proposals.

All waiver requests shall be discussed and a decision will be made by the DPW within 30 days of receiving the waiver request.

(B) Land Disturbance Permits Not to be Issued Where Waiver Requested.

No land disturbance permit shall be issued where a waiver has been requested until the waiver is granted. If no waiver is granted, the plans must be resubmitted with a completed land disturbance permit application.

SECTION 10. INDUSTRIAL ACTIVITY DISCHARGES

Industrial activity discharges as outlined in §54.08 of the Ordinance shall comply with the following requirements (unless they have their own private, NPDES permitted outfall(s):

(A) Storm Water Activity Associated with Industrial Discharge.

Any operator who intends to obtain coverage for storm water discharge associated with industrial activity under the NPDES General Permit for Storm Water Discharges Associated with Industrial Activity (“the Industrial General Permit”) shall submit a signed copy of its NOI to the DPW/EPD at least five (5) days prior to the commencement of the industrial activity at the facility. If industrial activity is already underway upon the effective date of the Storm Water Regulations, the NOI shall be submitted within thirty (30) days.

(B) Industrial General Permit SWPPP.

A SWPPP shall be prepared and implemented in accordance with the requirements of the Industrial General Permit or any individual or group NPDES permit issued for storm water discharges from the industrial facility, and with any additional requirement imposed by or under these Regulations.

(C) Preparation of SWPPP.

The SWPPP shall be prepared, signed and sealed by a Registered Professional Engineer or by a competent individual who has developed SWPPPs and is approved by the Director of Public Works.

- (1) Qualified personnel (provided by the operator) shall conduct comprehensive site compliance evaluations as required by the Storm Water Multi Sector General Permit for Industrial Activity at intervals of no less than once per year. The SWPPP shall be revised as appropriate within two weeks of such evaluation and shall provide for implementation of any changes to the SWPPP in a timely manner, but in no case more than twelve weeks after the compliance evaluation.
- (2) A report summarizing the scope of the comprehensive site compliance evaluation required by the Multi Sector General Permit personnel making the compliance inspection, the date(s) of the inspection, major observations relating to the implementation of the SWPPP, and actions taken in accordance with necessary and appropriate plan revisions shall be made and retained as part of the SWPPP for at least one year after all storm water discharges from the facility are eliminated and the required NOT has been submitted. The report shall identify any incidence of noncompliance; or, if the report does not identify any incidence of noncompliance, the report shall contain a certification that the facility is in compliance with the SWPPP, the applicable NPDES permit, and these Regulations. The individual responsible for the comprehensive site compliance evaluation shall sign the report, and it shall be submitted to the City’s DPW/EPD within ten days of completion.
- (3) If the industrial facility is required by the Multi Sector General Permit to conduct semi-annual monitoring, a signed copy of each storm water analytical monitoring

report prepared in accordance with the Multi Sector General Permit shall be submitted to the DPW/EPD.

- (4) By written notice, the Director of Public Works may require any industrial facility identified in accordance with this Section to implement a monitoring program that includes the submission of quantitative data on the following constituents; any pollutants limited in effluent guidelines subcategories, where applicable; any pollutant listed in an existing NPDES permit for the facility, oil and grease, COD, pH, BOD5, TSS, Total phosphorus, total Kjeldahl nitrogen, nitrate plus nitrite nitrogen, and any information on discharges required under 40 CFR 122.21(g)(7)(iii) and (iv). The Public Works Director may require written reports of any such monitoring to be submitted to him/her.
- (5) Where all storm water discharges associated with industrial activity that are authorized by the Storm Water Ordinance, and by the NPDES permit for those discharges from industrial activities, are eliminated, or where the operator of storm water discharges associated with industrial activity at a facility changes, the operator of the facility shall submit to the DPW/EPD a notice of Termination that includes the information required for Notices of Termination by Part IX of the Storm Water Multi-Sector General Permit for Industrial Activity.

SECTION 11. NOTIFICATION OF ACCIDENTAL DISCHARGES AND SPILLS

(A) Notification.

As outlined in §54.10 of the Ordinance.

(B) Release Reporting.

Any person in charge of any facility, vehicle, or other source of any spilling, leaking, pumping, pouring, emitting, emptying, discharging, escaping, leaching, dumping, disposing or any other release of any substances that may flow, leach, enter, or otherwise be introduced into the MS4 or waters of the United States, shall immediately telephone and notify the City of Manchester. This includes all spills of any size that enters a catch basin, culvert, or structure that conveys runoff from the site. It also includes any materials that spills outside the limits of the approved work area of the site. It also includes any spill that breaches a silt fence, or other best management control structure. To be reported also are spills that reach a wetland, stream, brook, pond, etc. whether within the work site or outside the work site.

All other spills that do not fall under the above criteria are to be recorded within the daily activity log of the site contractor or industrial operator, including the remediation taken, and the extent and quantity of the spill.

Substances include any reportable quantity as outlined in 40 CFR Part 302; any extremely hazardous substance as established under 40 CFR Part 355, any oil that causes a film or sheen or

discolors the surface of the water or causes a sludge emulsion to be deposited beneath the surface of the water or any harmful quantity of pollutant.

(C) Immediate Notification Required.

The immediate notification to the DPW/EPD or the authorized enforcement agency in person or by phone, or facsimile no later than 24 hours of any incident outlined in Section 11(B), of the nature, quantity and time of occurrence of the discharge. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the DPW/EPD within three (3) business days of the phone or in person notice and shall include the chemical or substance name, exact location of release, time and duration of release, estimated quantity and concentration of release, source of release, precautions that should be taken in regards to release, steps taken to contain and /or clean up release and the telephone numbers of the person or persons to be contacted for further information.

If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years. Said person shall also take immediate steps to ensure no recurrence of the discharge or spill. This information shall also be submitted in written form within five (5) days of the incident unless waived by a representative of the City.

(D) Liability for Damage and Loss.

The notifications required in Section 11(B & C) shall not relieve the responsible person of any expense, loss, damage or other liability which may be incurred as a result of the release. This includes liability for damage to the City, to natural resources, or to any other person or property; nor shall such notification relieve the responsible person of any fine, penalty, or other liability which may be imposed pursuant to the Storm Water Ordinance, these Regulations, or to state or federal law.

Any person responsible for a release shall comply with all state, federal, and any other local requiring reporting, cleanup, containment, and any other appropriate remedial action in response to the release. The responsible person shall reimburse the City for any cost incurred by the City in responding to the release.

Failure to provide notification of a release as provided above is a violation of the City of Manchester's Storm Water Ordinance.

SECTION 12. VIOLATIONS, ENFORCEMENT AND PENALTIES

As outlined in §54.11 (A through J) of the Ordinance

**Appendix A. Land Disturbance Permit Application Form and Checklist for Stormwater Management Plan
(SMP)**

LAND DISTURBANCE PERMIT APPLICATION

Department of Public Works · City of Manchester, New Hampshire

Please print legibly. Please note that this form must be signed by the property owner.

Submission Date:

Property Owner (For additional owners, please submit separate forms.)

Type of Application:

- ☐ Submitted with Site Plan
- ☐ Submitted with Subdivision
- ☐ Land Disturbance Only
 - ☐ Site restored to existing conditions
 - ☐ Includes site improvements
- ☐ Waiver from stormwater requirements (brief description):

Name: Address:

Phone:

E-mail address:

Agent

Name:

Title and company, if any:

Type(s) of Land Disturbance:

- ☐ $\geq 15\%$ slope and $\geq 1,000$ sq ft
- ☐ ≥ 0.5 acre
- ☐ < 0.5 acre, but part of a larger plan of development that disturbs ≥ 0.5 acre

Address:

Phone:

E-mail address:

Location/Address of Property:

Low Impact Development (LID) Statement

Tax Map/Lot No(s):

Zoning District:

Ward:

Has this project gone to the ZBA?

- ☐ Yes Case # _____
- ☐ No

LID techniques are innovative stormwater management systems that are modeled after natural hydrologic features, to manage rainfall at the source using uniformly distributed decentralized micro-scale controls and use small cost-effective landscape features at the lot level. To demonstrate compliance with the Stormwater Management Performance Standards, projects requiring stormwater management must complete an evaluation of possible stormwater management measures including environmentally sensitive site design and LID techniques that minimize land disturbance and impervious surfaces, structural stormwater management practices, pollution prevention, erosion and sedimentation control and proper operation and maintenance of stormwater BMPs. LID must be implemented on site to the maximum extent practicable. The applicant must document in writing why LID strategies are not appropriate when not used to manage stormwater. Check all provided in this project:

- ☐ Reducing impervious surfaces
- ☐ Disconnecting flow paths
- ☐ Treating stormwater at the source/Reuse of stormwater
- ☐ Protecting natural features and processes
- ☐ Minimizing disturbance/preserve existing vegetation
- ☐ Maximizing open space
- ☐ Other (describe)
- ☐ Enhancing wildlife habitat

Area of disturbance:

Existing impervious area:

Proposed impervious area:

LAND DISTURBANCE PERMIT APPLICATION

Department of Public Works · City of Manchester, New Hampshire

Please print legibly. Please note that this form must be signed by the property owner.

Slopes $\geq 15\%$ ²?

Yes No

If yes,

Area of disturbance:

Existing impervious area:

Proposed impervious area:

Where does the project discharge?

Identify the receiving water: _____

Is the receiving water on the most current EPA approved 303(d) list:

- ☐ Yes (list impairment and TMDL if applicable): _____
☐ No

Have all required application fees been submitted? (Refer to Section 4(B))

☐ Yes ☐ No

Have all required application materials been submitted? (Refer to Appendix A)

☐ Yes ☐ No

Have written requests been submitted for all waivers sought?

☐ Yes ☐ No

Certification, Permission, and Authorization: As the owner of the property that is the subject of this application, I hereby certify that the above information is correct and that I have submitted herewith all documentation required by Appendix A or requested a waiver in writing for any documentation not submitted. I hereby permit City of Manchester officials and staff to enter onto the property to inspect it as part of this application. I hereby authorize the person or entity listed herein as the Agent to represent my interests before the City in connection with this application.

Signature of Property Owner, Trustee, or Officer (Not Agent)

Printed Name and Title, if any

DO NOT WRITE BELOW THIS LINE - for Planning and Community Development use only.

Materials submitted:

- ☐ Plans (Full Sized—22" X 34")
☐ Reduced Plans
☐ Abutters List
☐ Application Fee
☐ Postage Fee
☐ Written Description
☐ Stormwater Design Calculations
☐ LTMA & I&M Plan
☐ PDF Files
☐ Deeds
☐ Other _____

Fees:

Application Fee: _____

Add. Review Fees: _____

Abutter Notices: _____

Subtotal: _____

SP/PD/DPW Project Number(s): _____

Receipt Stamp:



² A city-wide steep slope map is available for reference on the City's website under the stormwater regulations portion of the stormwater web page.

APPENDIX A

CHECKLIST FOR STORMWATER MANAGEMENT PLAN (SMP) UNDER LAND DISTURBANCE PERMIT REVIEW

The following checklist is a guide for applicants to ensure that they provide required or often-submitted information. Fulfillment of the checklist does not supersede the requirement of reviewing the Storm Water Regulations Manual and providing all information and materials required therein. Please check the box to indicate the item has been provided or provide a waiver request and an explanation why the item does not apply and submit this checklist with the application.

I. BASIC SUBMISSION MATERIALS

- ☐ A completed Land Disturbance Application form signed by the applicant and owner of record of the property.
- ☐ Abutters list including the names and mailing addresses of all abutting owners of record as defined herein.
- ☐ A check, made payable to the City of Manchester, or cash to include all fees required by Section 4(B) of the DPW Storm Water Regulations Manual.
- ☐ A copy of the existing deed for the property, and copies of all proposed deeds, covenants, or other legal documents to which the City of Manchester may be a party.
- ☐ Written requests for any waivers of the City's Storm Water Regulations Manual, with written justification.
- ☐ A list of all state and federal permits reviewed, applicability, and if required their status, including, but not limited to: Alteration of Terrain, On-site Sewage Disposal, Wetland and / or US Army Corps of Engineers, Shoreland, Public Water System, Privately Owned Sewerage, and Sewer Connection Permit, Dam permit (for construction of embankments).
- ☐ Five copies of a letter or report describing:
 - ☐ a summary of the proposed project with parcel ID and size of proposed alteration
 - ☐ existing and proposed conditions with calculation of the change in impervious area
 - ☐ a summary of the drainage analysis including:
 - ☐ calculations showing a comparison of the estimated peak flow and volumes for the 1-inch, 2-year, 10-year, 25-year, and 50-year, 24-hour storm at each of the outlet locations and demonstrating that post-development peak runoff rate does not exceed the pre-development peak runoff rate – undeveloped land shall be assumed to be in “good” condition

- ☐ a demonstration that the 100-year, 24 hour storm will not increase flooding impacts off-site
- ☐ calculations showing the sizing of emergency overflow structures and armor protection using the 50-year, 24-hour frequency storm discharge rate and maintaining one foot of freeboard at peak times with orifices and outlets blocked
- ☐ figures/diagrams to support drainage analysis calculations showing:
 - ☐ existing and proposed development impervious surfaces
 - ☐ labeled sub-catchments, reaches and ponds
 - ☐ culverts and other conveyance structures
 - ☐ time of concentration (Tc) lines
 - ☐ hydrologic soil groups – HSGs used in the calculations should match the HSGs on the maps
- ☐ how, with supporting calculations, the proposed project meets the performance standards of the City's Stormwater Management Regulations Manual, including, but not limited to:
 - ☐ use of LID practices to reduce the generation of stormwater runoff or description why LID strategies are not appropriate
 - ☐ construction and waste materials, chemical, and fuels expected to be stored and used on-site and controls to reduce pollutants from these materials
 - ☐ all infiltration and dry detention structures drain within 72 hours
 - ☐ recharge volumes by HSG and method for determining infiltration rates
 - ☐ 80% removal of TSS and 50% removal of both total nitrogen and total phosphorus for all new development projects and redevelopment projects having less than 40% existing impervious surface coverage demonstrated consistent with EPA Region 1 BMP removal tools
 - ☐ technique for managing water quality from redevelopment projects having more than 40% existing impervious coverage:
 - ☐ disconnection or treatment of 30% of the existing impervious cover as well as 50% of the additional proposed impervious surface and pavement area through the application of filtration media; or
 - ☐ implement other LID techniques onsite to the maximum extent practicable to provide treatment of runoff generated from at least 50% of the entire site area; or
 - ☐ off-site mitigation equivalent to the above
 - ☐ salt storage areas are fully covered and runoff from these areas enters treatment areas before being discharged to receiving waters or allowed to infiltrate into groundwater

- ☐ proposed snow storage areas are adequately sized for the proposed parking area footprint
 - ☐ no infiltration provided, except for roof runoff, on sites with vehicle fueling facilities/gas stations, locations with outdoor vehicle service, maintenance and equipment cleaning area, outdoor storage and loading/unloading areas of hazardous substances, and SARA 312 generators if materials or containers are exposed to rainfall
 - ☐ pretreatment and sealed or lined treatment BMPs used at sites with other higher pollutant loads
 - ☐ stream and wetland crossings comply with Env-Wt 900
 - ☐ receiving waters and impairments and how BMPs are designed to minimize the discharge of these pollutants where applicable
 - ☐ demonstration of no net increase of nitrogen in discharges, direct or indirect, to nitrogen impaired waters
 - ☐ demonstration of no net increase of phosphorus in discharges, direct or indirect, to phosphorous impaired waters
 - ☐ summary of measures to minimize salt usage for discharges in watersheds of chloride impaired waters and commitment to report salt usage to the UNH Technology Transfer Center online tool or to City of Manchester DPW
 - ☐ proposed erosion and sediment controls.
-
- ☐ Five copies of a long-term maintenance agreement (LTMA) and Inspection and Maintenance Plan developed in accordance with DPW's Storm Water Regulations Manual and DPW's Standard Specifications for Road, Drain & Sewer Construction.
 - ☐ For high-load areas and commercial parking areas with over 1,000 trip ends per day, five copies of a source control plan in accordance with DPW's Standard Specifications for Road, Drain & Sewer Construction.
 - ☐ Calculations supporting the design of the stormwater management system and its compliance with the performance standards established in the Standard Specifications. All calculations shall comply with the standards, procedures and methods described in the latest version of the New Hampshire Stormwater Manual.
- II. SITE PLAN
- ☐ Six copies of an accurate plan with all sheets 22" x 34" at a scale sufficient to show all pertinent details and drawn in black ink. In addition, four reduced copies at 11" x 17" and one at 8½" x 11" of the entire plan set shall be submitted.
 - ☐ The seal of a registered architect, landscape architect, engineer, wetland scientist, or surveyor, as appropriate, on each sheet.

- ☐ For final approval of a plan, the applicant shall submit a complete mylar plan set to be kept on file with the Department of Public Works and six paper copies of the plan set.

(A) *General Information.*

- ☐ Name and contact information of the applicant and name of the owner of record.
- ☐ A Title Block that includes title, date, scale, sheet numbers, applicant's contact information, and the map and lot number of subject parcel or parcels, located at either the lower-right corner of the plan or along the right edge
- ☐ A rectangular box of at least 4.5 inches wide by 2 inches tall located above the title block that shall be reserved for an approval stamp and signature
- ☐ A north arrow, pointing up whenever possible
- ☐ Plan references, located at the top-left corner of the plan
- ☐ Notes located on the right side of the plan
- ☐ In table or other appropriate form: total area of disturbance proposed, total area of existing and new impervious surface created, total area of disturbance proposed on slopes $\geq 15\%$, total area of existing and new impervious surface created on slopes $\geq 15\%$ lot area, setbacks, buffers, coverage, building and paved area.
- ☐ If the project disturbs one acre or more of land, a note stating, "A Notice of Intent shall be prepared and submitted to the Environmental Protection Agency under the National Pollutant Discharge and Elimination System (NPDES) Construction General Permit (CGP). A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared and maintained on site. The NOI and SWPPP shall also be submitted to DPW."
- ☐ A note stating, "If, during construction, it becomes apparent that additional erosion-control measures are required to stop any erosion on the construction site, the property owner shall be required to install the necessary erosion protection at no expense to the City."
- ☐ A note stating, "All improvements specified on these site plans shall be constructed, completed, inspected, and approved by the City prior to the issuance of a certificate of occupancy, where applicable. All stormwater structures shall be inspected and cleaned following site stabilization and prior to issuance of a certificate of occupancy, where applicable. A report including the inspection findings and cleaning activities shall be submitted to DPW."

- ☐ Where infiltration systems are provided, a note stating, “The Contractor shall stake out and protect the proposed infiltration systems during all construction activities.” Include notes that detail how the infiltration areas will be protected from compaction during construction activities or that sub-soils will be modified/re-generated following construction activities to ensure that the sub-soil infiltration capabilities that were modeled are maintained when the system becomes operational.
- ☐ When the owner is the developer of the property, there shall be a statement on the site-plan cover sheet, signed by the owner, stating, “It is hereby agreed that, as the owner/developer of the property, I will construct the project as approved and as shown on the enclosed set of plans. Further, I agree to maintain the site improvements for the duration of the use in accordance with the LTMA,”
- ☐ When the owner is not the developer of the property, and the property is instead developed by a lessee, there shall be a note on the site-plan cover sheet signed by the lessee-developer stating, “It is hereby agreed that, as the lessee-developer of this property, under a long-term lease with the owner, I, as lessee-developer, will adhere to the conditions noted on this plan and construct and maintain the necessary improvements as shown hereon and in accordance with the LTMA.” There shall also be a note on the plan cover sheet signed by the owner stating, “It is hereby agreed that, as the owner of this property, I consent to the conditions noted on this plan. I understand that these conditions are required to allow the modifications requested by the lessee-developer and I consent for them to be constructed on this property.”
- ☐ A note stating, “All conditions subsequent to approval shall be completed within two years of the date of final approval.”

(B) *Property.*

- ☐ Boundary lines of the property including bearings and dimensions.
- ☐ Existing and proposed contours at intervals of two (2) feet with source of contours noted on the plan and spot grades where necessary for sites that are flat.
- ☐ Location, width and purpose of all existing and proposed easements and rights-of-way on the property.
- ☐ Location of all existing stormwater conveyances, impoundments, water courses, wetlands, buffers or shoreland areas, any water quality impairments of receiving waters receiving discharge from the site, and other significant physical features, and where applicable, the 100-year base flood elevation on or adjacent to the site or into which stormwater flows.
- ☐ Existing and proposed development impervious surfaces, buildings and structures, building setbacks and buffers, mature vegetation, temporary and permanent stormwater management elements and best management practices (BMPs), including BMP GIS coordinates and GIS files, and important hydrologic features created or preserved on the site.

- ☐ Storage locations for fuel, chemicals, chemical or industrial wastes, and biodegradable raw materials.

- ☐ A note stating the purpose of the plan.

(C) *Erosion and Stormwater Controls.*

- ☐ All proposed low impact development (LID) practices.
- ☐ Limits of disturbance, location and details of proposed erosion and sediment control measures with a narrative of the construction sequence/phasing of the project, material stockpiling areas, temporary basins and inspection schedule.
- ☐ Location and description of where and how construction vehicles and equipment will be cleaned within the site or at designated entry/egress stations at the site boundary.
- ☐ An estimate of seasonal high groundwater elevation in each area to be used for stormwater retention, detention, or infiltration.
- ☐ A description and drawings of all components of the proposed drainage system including:
 - ☐ Locations, cross-sections, and profiles of all brooks, streams, drainage swales, and their method of stabilization;
 - ☐ All measures for the detention, retention, or infiltration of water;
 - ☐ All measures for the protection of water quality;
 - ☐ Landscape plan/planting schedule for any vegetated stormwater controls;
 - ☐ The structural details for all components of the proposed drainage systems and stormwater management facilities, including the following where applicable;
 - ☐ Stormwater treatment structures and detention basins with inverts noted on the inlet and outlet structures
 - ☐ Stone berm level spreader
 - ☐ Outlet protection – riprap aprons
 - ☐ A general installation detail for an erosion control blanket
 - ☐ Silt fences or mulch berm
 - ☐ Storm drain inlet protection. Note that since hay bales must be embedded 4 inches into the ground, they are not to be used on hard surfaces such as pavement.
 - ☐ Hay bale barriers
 - ☐ Stone check dams
 - ☐ Gravel construction exit
 - ☐ Temporary sediment trap
 - ☐ Notes on drawings, specifying materials to be used, construction specifications, and typicals; and

- ☐ Expected hydrology, drainage system hydraulics and supporting calculations.

III. DIGITAL FILE FORMAT

- ☐ All plans submitted as a .pdf file, one file for each plan. They are in addition to and do not replace any current submission requirements. Accompanying documentation or updated information supplied after submission must also be accompanied by a CD-ROM containing the amended or new information in PDF format. This digital format will be kept in the DPW digital files and may be used to send plans to other City Departments, abutters, peer review engineers, and all other interested parties.

Applicants submitting as-built mylars to the DPW shall also submit a CD- ROM that contains a digital file with all features shown on the mylars. The preferred file format for submission is the AutoCAD drawing (.dwg) format, however, any of the following other formats are acceptable: .dxf (Drawing Exchange File) format, ESRI Geodatabase format (.mdb), ESRI Export file format (.E00), or ArcView Shapefile format (.shp). Each type of feature on the digital file shall be on a separate layer, such as one layer for parcel boundaries, one layer for drainage, one layer for sewer, and one layer for curbs. Datums for all digital files submitted shall be NAD 83/92 (HARN) for the horizontal datum (not NAD 83), and NAVD 88 for the vertical datum. The coordinates of all stormwater infrastructure elements (e.g., catch basins, swales, detection/bioretenction areas, piping) shall be included in the digital files.

ACKNOWLEDGEMENT

The undersigned acknowledges that he or she has provided all information and materials required herein or provided a written waiver request with a narrative justification for each item not submitted.

Signature _____

Name, printed _____

Title _____

Date _____